one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable, wherein the one or more bars extending along the gauge axis comprises:

a first bar extending along the gauge axis, wherein a first end of the first bar is representative of an engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable; and

a second bar extending along the gauge axis, wherein a first end of the second bar is representative of an operator set high limit for the process variable and a second end of the second bar is representative of an operator set low limit for the process variable; and

a graphical shape displayed along the gauge axis representative of a current value of the process variable.

6. (AMENDED) The graphical user interface of claim 1, wherein the second bar extending along the gauge axis representative of operator set high and low limits for the process variable extends along the gauge axis within the first bar representative of the engineering hard high and low limits for the process variable.

7. (AMENDED) The graphical user interface of claim 6, wherein the one or more bars extending along the gauge axis further comprise a delta soft high region within the second bar and adjacent the first end thereof and a delta soft low region within the second bar and adjacent the second end thereof, and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits.

9. (AMENDED) The graphical user interface of claim 1, wherein the graphical user interface further comprises user manipulation elements movable to change one or more of the high and low process limit values.

11. (AMENDED) The graphical user interface of claim 9, wherein the user manipulation elements comprise one or more manipulation pointer flags associated with operator set limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such operator set limits.

12. (AMENDED) The graphical user interface of claim 9, wherein the user manipulation elements comprise one or more manipulation pointer flags associated with the engineering hard limits, the one or more manipulation pointer flags are draggable along the gauge axis to change such engineering hard limits.

14. (AMENDED) The graphical user interface of claim 1, wherein the graphical user interface further comprises at least one additional graphical shape displayed along the gauge axis representative of at least one additional value for the process variable.

20. (AMENDED) The graphical user interface of claim 1, wherein the graphical user interface further comprises a trend graph for the process variable.

21. (AMENDED) The graphical user interface of claim 20, wherein the trend graph comprises at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable values.

22. (AMENDED) The graphical user interface of claim 20, wherein the trend graph comprises at least one of a historical trend graph and a prediction trend graph for displaying trend information representative of process variable limits.

23. (AMENDED) The graphical user interface of claim 1, wherein the one or more process variables comprise a plurality of manipulated variables and a plurality of controlled variables of a continuous multivariable process.

24. (AMENDED) A computer implemented method for providing a graphical user interface for providing real-time process information to a user for a process that is operable under control of one or more process variables, the method comprising:

displaying a scale extending along a gauge axis;

displaying one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable, wherein displaying one or more bars extending along the gauge axis comprises:

displaying a first bar extending along the gauge axis, wherein a first end of the first bar is representative of an engineering hard high limit for the process variable and a second end of the first bar is representative of an engineering hard low limit for the process variable; and

displaying a second bar extending along the gauge axis, wherein a first end of the second bar is representative of an operator set high limit for the process variable and a second end of the second bar is representative of an operator set low limit for the process variable;

providing data representative of at least the current value of the process variable; and

displaying a graphical shape along the gauge axis representative of the current value of the process variable relative to the set of high and low process limit values.

27. (AMENDED) The method of claim 24, wherein displaying one or more bars extending along the gauge axis further comprises displaying a delta soft high region within the second bar and adjacent the first end thereof and a delta soft low region within the second bar and adjacent the

second end thereof, and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits.

29. (AMENDED) The method of claim 24, wherein displaying the one or more bars extending along the gauge axis comprises displaying the second bar extending along the gauge axis representative of the operator set high and low limits for the process variable within the first bar representative of engineering hard high and low limits for the process variable.

30. (AMENDED) The method of claim 29, wherein displaying one or more bars extending along the gauge axis further comprises displaying a delta soft high region within the second bar and adjacent the first end thereof and a delta soft low region within the second bar and adjacent the second end thereof, and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits.

31. (AMENDED) The method of claim 29, wherein displaying the delta soft high region within the second bar and adjacent the first end thereof and a delta soft low region within the second bar and adjacent the second end thereof comprises:

receiving user input representative of the delta values; and

displaying a delta soft high region and a delta soft low region that overlap providing for an optimization pseudo set point within the operator set high and low limits.

33. (AMENDED) The method of claim 24, wherein the method further comprises:

displaying user manipulation elements movable to change one or more of the high and low process limit values;

moving such user manipulation elements to generate data representative of changed high or low process limit values; and

providing such data to a controller of the process.

34. (AMENDED) The method of claim 33, wherein the method further comprises rescaling the scale extending along the gauge axis as a function of the movement of the user manipulation elements.

35. (AMENDED) The method of claim 33, wherein moving such user manipulation elements to generate data comprises dragging one or more manipulation pointer flags associated with the operator set limits along the gauge axis to change such operator set limits.

36. (AMENDED) The method of claim 33, wherein moving such user manipulation elements to generate data comprises dragging one or more manipulation pointer flags associated with the engineering hard limits along the gauge axis to change such engineering hard limits.

37. (AMENDED) The method of claim 33, wherein moving such user manipulation elements to generate data comprises dragging one or more manipulation pointer flags associated with the delta soft limits along the gauge axis to change such delta soft limits.

39. (AMENDED) The method of claim 24, wherein the method further comprises displaying at least one additional graphical shape along the gauge axis representative of an additional value for the process variable.

40. (AMENDED) The method of claim 39, wherein displaying the at least one additional graphical shape comprises displaying at least one additional pointing device proximate to the scale extending along the gauge axis.

41. (AMENDED) The method of claim 24, wherein the method further comprises rescaling the scale extending along the gauge axis as a function of the current value of the process variable relative to the set of high and low process limit values.

42. (AMENDED) The method of claim 24, wherein displaying the graphical shape representative of the current value of the process variable comprises:

determining a state of the current value of the process value relative to the set of high and low process limit values; and

displaying the graphical shape in a color of a set of colors that reflects the state of the current value for the process variable.

43. (AMENDED) The method of claim 42, wherein determining the state of the current value of the process value relative to the set of high and low process limit values comprises determining whether the current value of the process variable is within the set of high and low process limit values, determining whether the current value of the process variable is within a certain percentage of a limit value of the set of high and low process limit values, and determining whether the current value of the process variable is a certain percentage outside of the set of high and low process limit values.

44. (AMENDED) The method of claim 24, wherein the method further comprises:

determining whether the current value of the process variable is outside of the set of high and low process limit values; and

displaying a graphical element representative of engineering physical limits of the process variable when the current value of the process variable is outside the set of high and low process limit values.

45. (AMENDED) The method of claim 44, wherein displaying a graphical element representative of engineering physical limits of the process variable comprises displaying a background region adjacent the one or more bars along the gauge axis in a particular color representative of engineering physical limits.

46. (AMENDED) The method of claim 24, wherein the method further comprises displaying a trend graph for the process variable with the displayed scale, one or more bars, and the graphical shape representative of the current value of the process variable.

47. (AMENDED) The method of claim 46, wherein displaying the trend graph comprises displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable values.

48. (AMENDED) The method of claim 46, wherein displaying the trend graph comprises displaying at least one of a historical trend graph and a prediction trend graph for the process variable representative of process variable limits.

49. (NEW) A graphical user interface for providing real-time process information to a user with regard to a process that is operable under control of one or more process variables, the graphical user interface comprising:

a scale extending along a gauge axis;

one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable, wherein the one or more bars extending along the gauge axis comprise a first bar extending along the gauge axis, wherein a first end of the first bar is representative of an operator set high limit for the process variable and a second end of the first bar is representative of an operator set low limit for the process variable, and further wherein the one or more bars extending along the gauge axis further comprise a delta soft high region within the first bar and adjacent the first end thereof and a delta soft low region within the first bar and adjacent the second end thereof, and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits; and

a graphical shape displayed along the gauge axis representative of a current value of the process variable.

50. (NEW) The graphical user interface of claim 49, wherein the one or more bars extending along the gauge axis further comprise a second bar extending along the gauge axis, wherein a first end of the second bar is representative of an engineering hard high limit for the process variable and a second end of the second bar is representative of an engineering hard low limit for the process variable.

51. (NEW) The graphical user interface of claim 50, wherein the first bar extending along the gauge axis representative of operator set high and low limits for the process variable extends along the gauge axis within the second bar representative of the engineering hard high and low limits for the process variable.

52. (NEW) The graphical user interface of claim 49, wherein the delta soft high region and the delta soft low region overlap within the first bar to provide for optimization to a pseudo set point.

53. (NEW) A computer implemented method for providing a graphical user interface for providing real-time process information to a user for a process that is operable under control of one or more process variables, the method comprising:

displaying a scale extending along a gauge axis;

displaying one or more bars extending along the gauge axis, each bar representative of a set of high and low process limit values for a process variable, wherein displaying one or more bars extending along the gauge axis comprises displaying a first bar extending along the gauge axis, wherein a first end of the first bar is representative of an operator set high limit for the process variable and a second end of the first bar is representative of an operator set low limit for the process variable, and wherein displaying one or more bars extending along the gauge axis

further comprises displaying a delta soft high region within the first bar and adjacent the first end thereof and a delta soft low region within the first bar and adjacent the second end thereof, and further wherein the delta soft high region and the delta soft low region are representative of a delta optimization range within the operator set high and low limits;

providing data representative of at least the current value of the process variable; and

displaying a graphical shape along the gauge axis representative of the current value of the process variable relative to the set of high and low process limit values.

54. (NEW) The method of claim 53, wherein displaying one or more bars extending along the gauge axis comprises displaying a second bar extending along the gauge axis, wherein a first end of the second bar is representative of an engineering hard high limit for the process variable and a second end of the second bar is representative of an engineering hard low limit for the process variable.

55. (NEW) The method of claim 53, wherein displaying the one or more bars extending along the gauge axis comprises displaying the first bar extending along the gauge axis representative of the operator set high and low limits for the process variable within the second bar representative of engineering hard high and low limits for the process variable.

56. (NEW) The method of claim 53, wherein displaying the delta soft high region within the first bar and adjacent the first end thereof and a delta soft low region within the first bar and adjacent the second end thereof comprises:

receiving user input representative of the delta values; and

displaying a delta soft high region and a delta soft low region that overlap providing for an optimization pseudo set point within the operator set high and low limits.

57. (NEW) The method of claim 56, wherein the optimization pseudo set point is proportional to the delta soft high region and delta soft low region.